CLAIMS

What is claimed is:

1. A method for array design, comprising:

(a) selecting, by a customer, at least one array design parameter;

(b) providing said customer selected array design parameter to a vendor;

(c) providing, by said vendor, at least one additional array design parameter; and

(d) completing at least one array design according to said customer-selected array design parameters and said vendor provided array design parameters.

2. The method of claim 1, wherein said completing is carried out by said vendor.

3. The method of claim 1, wherein said completing is carried out by said customer.

4. The method of claim 1, wherein said array is a nucleic acid array, and said customer selected array design parameters are gene-based parameter selections.

5. The method of claim 4, wherein said customer selected array design parameters comprise layout parameters.

6. The method of claim 4, wherein said customer selected array design parameters comprise probe parameters.

7. The method of claim 4, wherein said customer selected array design parameters comprise control probe parameters.

8. The method of claim 1, further comprising generating a visual interface for said customer, said visual interface providing a display with parameter selection options for said selecting.

9. The method of claim 8, wherein said generating said visual interface further comprises generating a visual display of an array layout for said customer, based on said customer selected array design parameters.

10. The method of claim 9, further comprising reviewing, by said customer, said customer selected array design parameters, according to said visual display of said array layout.

11. The method of claim 9, further comprising revising, by said customer, said customer selected array design parameters.

12. A method for nucleic acid array design, comprising:

(a) selecting, by a customer, at least one gene-based array layout parameter;

(b) providing said customer selected gene-based array layout parameter to a vendor;

(c) providing, by said vendor, at least one probe selection parameter; and

(d) completing at least one array design according to said customer-selected array design parameters and said vendor provided array design parameters.

13. The method of claim 12, further comprising generating a visual interface for said customer on a customer computer, said visual interface providing a display with gene-based layout parameter selection options for said selecting.

14. The method of claim 13, wherein said generating said visual interface further comprises generating a visual display of an array layout for said customer, based on said customer selected gene-based array layout parameters.

15. The method of claim 14, further comprising reviewing, by said customer, said customer selected gene-based array layout parameter, according to said visual display of said array layout.

16. The method of claim 15, further comprising revising, by said customer, said customer selected gene-based array layout parameter.

17. A system for array design comprising at least one data processor, said data processor comprising;

(a) stored programming configured to allow an array customer to enter selectable array design parameters;

(b) stored programming configured to allow said array customer to view said selected array design parameters:

(c) stored programming configured to allow said array customer to revise said selected array design parameters; and

(d) stored programming configured to allow said array customer to output said selected array design parameters to an array vendor.

18. The system of claim 17, further comprising stored programming configured to generate a visual display for said array customer, said visual display configured to allow said array customer to enter said selectable array design parameters, view said selectable array design parameters, and revise said selectable array design parameters.

19. The system of claim 17, wherein said selectable array design parameters are gene-based array design parameters.

20. The system of claim 19, wherein said gene-based array design parameters are array layout parameters.

21. The system of claim 18, wherein said system comprises a vendor server computer, and at least one customer client computer operatively coupled thereto, said stored programming located on said vendor computer, said stored programming configured to generate said visual display on said customer client computer.

22. An array design system, comprising:

(a) means for selecting, by an array customer, at least one array design parameter;

(b) means for providing said customer selected array design parameter to a vendor;

(c) means for providing, by said vendor, at least one additional array design parameter; and

(d) means for completing at least one array design according to said customer-selected array design parameters and said vendor provided array design parameters.

23. A method for gene-based design of an in-situ array, comprising:

(a) selecting, by a customer, at least one gene of interest;

(b) selecting, by a customer, at least one array design parameter for said gene of interest;

(c) providing said customer selected array design parameter to a vendor;

(d) providing, by said vendor, at least one additional array design parameter for said gene of interest; and

(e) completing at least one array design according to said customer-selected array design parameters and said vendor provided array design parameters.

24. The method of claim 23, further comprising synthesizing nucleic acid probes on a substrate surface, according to said completed array design to provide said in-situ array.

25. The method of claim 23, wherein said array design parameter provided by said customer comprises a probe parameter.

26. The method of claim 23, wherein said array design parameter provided by said vendor comprises probe selection.

27. A method for gene-based array design, comprising:

(a) selecting, by a customer, at least one gene of interest;

(b) selecting, by said customer, at least one probe parameter for said gene of interest;

(c) selecting, by said customer, at least one array layout parameter for said gene of interest;

(d) curating, by a vendor, sequence information for said gene of interest; and

(e) selecting, by said vendor, a plurality of nucleic acid probes for said gene of interest.

28. The method of claim 27, further comprising synthesizing nucleic acid probes on a substrate surface, according to said completed array design to provide said in-situ array.

29. In a computer readable medium, stored programming for gene-based array design, comprising:

(a) programming configured to allow an array customer to input identification of at least one selected gene;

(b) programming configured to allow an array customer to input at least one selectable array parameter for said selected gene;

(c) programming configured to generate a visual user interface that displays an array layout based on said selectable array parameter for said selected gene; and

(d) programming configured to allow an array vendor to utilize said array parameter inputted by said customer to preparing a completed array design for said selected gene.

30. A kit for array gene-based array design by a customer comprising the computer readable media of claim 29, and printed instructions for inputting, by said customer, said selected gene and said selectable array parameter for said selected gene.